Grade Level and Subject: 7th grade Science

Description: Students are studying ecology. They are learning about niches, habitats, and populations. For this lesson the students are going to determine if building a new bridge to link the mainland with the island will have any effect on the ecology of our area.

Outcome: Students will answer through a PBL whether building a bridge to connect the mainland to the island will affect the ecology of our area. Once the students decide if there will be an effect on ecology they will determine which area would be best to build the bridge.

Steps: The students will first study about ecology. They will learn about our local ecology by identifying niches and habitats, as well as the different populations of animals and sea life we have. In order for the students to research this information they will be using the internet and take a field trip on a shrimp boat. The field trip will consist of an expert speaking about our local ecology and dragging the nets so that students can see what sea life we have. The students will then research bridge structures and other areas similar to ours that have built bridges. While the students are completing each of these steps they will be required to post on a wiki that I will have set up their findings. There will a designated day each week that the students will have to post how their research is going and what difficulties they are having. This will allow me to assist the students with any difficulties they are having and to assess how they are doing. Once the students have completed their research they will then determine what area on the mainland would be best to build the bridge that will connect to the best area on the island.

For the final part of the project the students will complete a digital story. Throughout the project the students will be taking pictures on their field trip, parts of the island and mainland, and using pictures from the internet that will answer their question. Once the students have done this they will organize these pictures into a digital story that will be shown to the class. The students will be required to do a voice over or subtitles to their story in order to teach the other students how they came to their conclusion.

The students will be taught how to use Windows Movie Maker or similar software in order to complete the digital storytelling. I will take pictures over the holiday of my family doing different activities and then put together a digital story so that the students will be familiar with what I am asking them to do. I will schedule times with my students throughout their project so that I can be aware of any problems that may arise and work one on one with them on the digital story. The digital story will be used to show the work that the students did while finding an answer to their questions.